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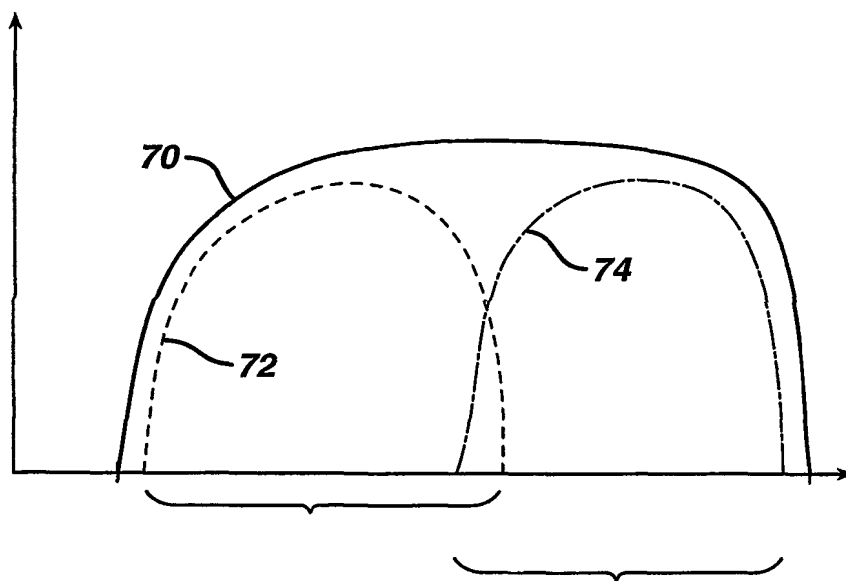
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(54) Title: **ULTRASONIC MULTIPLE BEAM TRANSMISSION USING SINGLE CRYSTAL TRANSDUCER**



(57) Abstract: An ultrasonic imaging system uses a wide bandwidth transducer to transmit multiple simultaneous beams. The beams occupy different frequency bands of the transducer bandwidth and are steered in different beam directions. The received beams are separated by bandpass filters tuned to the different frequency bands. If the different frequency bands overlap, cross-talk between the two beams may be reduced by using coded pulses for the transmit beams and matched filters to separate the received echo signals of the simultaneous beams. a single crystal transducer is used as the wide bandwidth transducer.

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